California Institute of Technology

E-102 “Entrepreneurial Development”
(3,0,6) Credit or P/F

Course Expectations
Winter Term 2009 – Location Spalding Labs 102
Time 2:30 to 4:00 PM
NO required text

Instructor: Kenneth A. Pickar
Office: Thomas 101  Best to e-mail for appointment
pickar@caltech.edu  626 395 4185

TA: Andy Downard
Office: Keck 218
adownard@caltech.edu  626 395 3443

Website: pickar.caltech.edu

Mentors: Al Schneider, Kevin Scanlon, Elizabeth Tito, Bob Buce, John Babcock

Entrepreneurial Resources:
Caltech Library (Kristin Buxton)
Caltech Technology Transfer Office (fred.farina@caltech.edu)
Caltech Entrepreneurs Club (adownard@caltech.edu)
Caltech/MIT Enterprise Forum (www.entforum.caltech.edu)
Caltech Industrial Relations Center (www.irc.caltech.edu)
Art Center College of Design (tonyluna@aol.com)
USC Marshall School of Business, UCLA Anderson School of Business, UCLA Anderson School of Business, LARTA (Los Angeles Regional Technology Alliance), Entretec, LAVA, Tech Coast Angels, Pasadena Angels, Local VCs, etc

Students are invited to meet with guest speakers for lunch before the lectures

Mentors
E 102 will have mentors to coach student teams

Role of Mentor
The individual mentor is a designated coach for each E102 Team to provide project guidance. This includes networking contacts and introductory access to potential customers and partners; counsel on business behaviors including structured meeting methods, business communication techniques, team process, negotiating and sales skills, and overall entrepreneurial life lessons; advice on additional resources including books, other experts. Mentors guide rather than teach, offering an experienced sounding board on all aspects of starting a technology business. The Mentors will meet with the students at least once in person and attend the Final Presentation. Other meetings are at the discretion of
each Team and could include additional face-to-face meetings and/or e-mail, teleconferences, etc. It is up to YOU to take advantage of this resource!

Teams
It is suggested that Team Members have a like degree of commitment. Usually this means that Auditors or P/F students form separate Teams than students taking the Course for a Grade. To increase the team diversity and benefit from their skills, we are inviting students from the Art Center School of Design in Pasadena to join our teams. To participate in this class, you must take these teams very seriously. You are obligated to attend team meetings and bear your share of the burden. Each team member will receive an identical grade for efforts produced by the team. However, there will be some grade differentiation based on contribution to class discussions. We will form these Teams very early in the quarter, beginning the first day of class. At each class homework may be presented by one or more Team.

All Homework will be done by all teams and submitted to the TA and myself on the date due; Your grade ("HW") will be based on these analyses. All other members of the class who are not presenting are required to do the Homework and be prepared to comment. The discussion which ensues simulates how business start-up or established is actually conducted; most business information is transmitted orally through presentation and discussion. Therefore, I will require all students to contribute. I know some students are not comfortable with this and I will make some allowances. However, I do want all to join in and 20% of the grade will be dependent upon this participation.

Please e-mail the TA Andy Downard all your assignments in .pdf format when they are due. Presentations given in class should be in Powerpoint, and the slides should be converted to a .pdf and sent to Andy.

Team Guide

Expectations
The above only works if the teams work as teams with everybody contributing. No free rides. The Caltech honor code applies here. Everyone in the class, presenting or not, does the homework. Everyone (or almost everyone) attends each class, showing up on time. If you have to unavoidably miss a class, I would like an e-mail or telephone message in advance informing me of the fact.

If there are irresolvable issues, teams can be broken up and the members re-assigned. This should be a rare occurrence. You are encouraged to contact Andy with any teamwork problems that cannot be resolved by the team itself.

This is the kind of learning where looking up lectures on the web or just doing the assigned readings will not suffice. The student needs to follow the arguments made and participate in arriving at an acceptable conclusion. The journey in getting there is part of the learning experience. Mathematically, the formula is as follows:
Learning = f(team effectiveness + team preparation + rest-of-class preparation) X (class attendance)

**GRADING**

HW Presentations  
20%

Midterm presentation plus

Midterm paper (5 pages)  
20%
Criteria  
1. Depth of market research especially primary research  
2. Quality of understanding of the problem

Final presentation plus

Final paper (20 pages)  
40%
Criteria:  
1. Convincing argument (logic, self consistency, flow)  
2. Originality of thought  
3. Depth of Understanding

Class contribution  
20%
1. Prepared, show up, volunteer opinions  
2. Not team based

**Extra credit:** A 10 minute presentation on “New Learnings” At your volition, if you come across a subject of general business interest to the class, you can apply to the instructor to present it. The extra credit will be 0-5% depending on quality of insight.

**Caltech/MIT Enterprise Forums and the Tech Coast Angel Meeting at Caltech are recommended as opportunities to learn additional material and network.**

**References**

John Nesheim, “High Tech Start Up”  
Timmons, “New Venture Creation”  
Michael O’Donnell, “Writing Business Plans That Get Results”

Other References  
Kathleen R. Allen, Launching New Ventures , Third Edition  
Tech Coast Angels, “How to present your company”, http://www.techcoastangels.com/resources/1  
“How to Read a Balance Sheet, Income Statement” for example, (http://www.ameritrade.com/educationv2/fhtml/learning/uincomestates.fhtml)  
William Davidow, “Marketing High technology”  
Peter Drucker, “The Discipline of Innovation” article on idea creation
Geoffrey Moore, “Crossing the Chasm”
Constance Bagley, “Ethical Leaders Decision Tree’ HBS Publishing
Robert Anthony, “Core Concepts of Accounting’ (program learning)
Ed McQuarrie Customer Visits